

***What is Claimed is:***

1. A method of performing clear operations in a region having a subregion, comprising:

responsive to a clear command:

leaving a current clear count for the region unchanged;

writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion; and

writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion.

2. The method of claim 1, wherein the subregion is a scissor region.
3. The method of claim 1, wherein the subregion is a viewport.
4. The method of claim 1, wherein the predetermined value is a color value.
5. The method of claim 4, wherein the color value is the same as a background color outside the subregion.
6. The method of claim 4, wherein the color value is different than a background color outside the subregion.
7. The method of claim 1, wherein the predetermined value is a z value.

8. A method of performing clear operations in a region having a subregion, comprising:
- prior to creation of the subregion, responding to clear commands for the region according to a fast clear technique;
- after creation of the subregion and during the life of the subregion, responding to clear commands for the region by:
- leaving a current clear count for the region unchanged;
  - writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion; and
  - writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion; and
- after discontinuance of the subregion, resuming responding to clear commands for the region according to the fast clear technique.
9. The method of claim 8, wherein the resuming step occurs without changing the current clear count for the region.
10. The method of claim 8, wherein the fast clear technique is a striped fast clear technique.
11. The method of claim 10, wherein the resuming step occurs without changing stripe definitions for the region.
12. The method of claim 8, wherein the subregion is a scissor region.

13. The method of claim 8, wherein the subregion is a viewport.
14. The method of claim 8, wherein the predetermined value is a color value.
15. The method of claim 14, wherein the color value is the same as a background color outside the subregion.
16. The method of claim 14, wherein the color value is different than a background color outside the subregion.
17. The method of claim 8, wherein the predetermined value is a z value.

18. A method of performing clear operations in a region having a subregion, comprising:

determining the percentage area of the region occupied by the subregion; and  
if the percentage area is not higher than a predetermined threshold percentage,  
responding to clear commands for the region by:

leaving a current clear count for the region unchanged;

writing a predetermined value into each of the pixels of the subregion, but  
not into the pixels outside the subregion; and

writing the current clear count into clear count storage locations  
corresponding to each of the pixels of the subregion, but not into clear  
count storage locations corresponding to the pixels outside the  
subregion.

19. The method of claim 18, wherein the predetermined threshold percentage is about 75%.

20. The method of claim 18, wherein the predetermined threshold percentage is about 70%.

21. The method of claim 18, wherein the subregion is a scissor region.

22. The method of claim 18, wherein the subregion is a viewport.

23. The method of claim 18, wherein the predetermined value is a color value.

24. The method of claim 23, wherein the color value is the same as a background color outside the subregion.

25. The method of claim 23, wherein the color value is different than a background color outside the subregion.

26. The method of claim 18, wherein the predetermined value is a z value.

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27. Computer program code embodied in a machine-readable storage or transmission medium which, when executed on a computer, causes the computer to perform a method of performing clear operations in a region having a subregion, comprising:

responsive to a clear command:

leaving a current clear count for the region unchanged;

writing a predetermined value into each of the pixels of the subregion, but not into the pixels outside the subregion; and

writing the current clear count into clear count storage locations corresponding to each of the pixels of the subregion, but not into clear count storage locations corresponding to the pixels outside the subregion.

28. Computer program code embodied in a machine-readable storage or transmission medium which, when executed on a computer, causes the computer to perform a method of performing clear operations in a region having a subregion, comprising:

prior to creation of the subregion, responding to clear commands for the region according to a fast clear technique;

after creation of the subregion and during the life of the subregion, responding to clear commands for the region by:

leaving a current clear count for the region unchanged;

writing a predetermined value into each of the pixels of the subregion, but

not into the pixels outside the subregion; and

writing the current clear count into clear count storage locations

corresponding to each of the pixels of the subregion, but not into clear

count storage locations corresponding to the pixels outside the

subregion; and

after discontinuance of the subregion, resuming responding to clear commands for the region according to the fast clear technique.

29. Computer program code embodied in a machine-readable storage or transmission medium which, when executed on a computer, causes the computer to perform a method of performing clear operations in a region having a subregion, comprising:

determining the percentage area of the region occupied by the subregion; and  
if the percentage area is not higher than a predetermined threshold percentage,  
responding to clear commands for the region by:

leaving a current clear count for the region unchanged;

writing a predetermined value into each of the pixels of the subregion, but  
not into the pixels outside the subregion; and

writing the current clear count into clear count storage locations  
corresponding to each of the pixels of the subregion, but not into clear  
count storage locations corresponding to the pixels outside the  
subregion.